Index of Claims

| Application No.    | Applicant(s) |   |
|--------------------|--------------|---|
| 10/701,761         | GRAY ET AL   | • |
| Examiner           | Art Unit     | • |
| Zeinab E. EL-Arini | 1746         |   |

| <b>√</b> | Rejected | - | (Through numeral)<br>Cancelled | N |   | Non-Elected  | A | Appeal   |
|----------|----------|---|--------------------------------|---|---|--------------|---|----------|
| II.      | Allowed  | + | Restricted                     |   | Ī | Interference | 0 | Objected |

| CL     | aim      | Г             |          |          |          | Date     | -         |          |          |           | ::::: | CI            | aim      | Т        |          | ****         | Da                  | -        |  |          | 7        |          | C               | aim        |          |                 |          | -        | 4-       |          |               | _        |
|--------|----------|---------------|----------|----------|----------|----------|-----------|----------|----------|-----------|-------|---------------|----------|----------|----------|--------------|---------------------|----------|--|----------|----------|----------|-----------------|------------|----------|-----------------|----------|----------|----------|----------|---------------|----------|
|        |          | 7             |          |          | i        |          | Ĭ         |          | 1        | _         |       | <u> </u>      | 1        | ╁        |          |              | <del>- ۲</del> °    | Ť        | 7  | 1        | $\dashv$ |          | U               |            |          | _               | _        | De       | 10       | _        | $\overline{}$ | г        |
| Final  | Original | 31207         |          |          |          |          |           |          |          |           |       | Final         | Original |          |          |              |                     |          |  |          |          |          | Final           | Original   |          |                 |          |          |          |          |               |          |
|        | 6        | <del>)/</del> | Н        |          | $\dashv$ | Н        | Н         |          | $\dashv$ | ***       |       |               | 51       | H        | Н        | 4            | +                   | 1_       | $\sqcup$   | +        | 4        |          |                 |            | _        | 4               | 4        | 4        | ╀        | 丄        | Щ             | L        |
| _      | 2        | V             | Н        | ┪        | ⊣        | Н        | -         | $\vdash$ | -        |           |       |               |          | $\vdash$ | Н        | -            | +-                  | ╁        | $\vdash$   | +        | 4        |          |                 | 101        | -+-      | +               | +        | +        | ╀        | ╄        | $\sqcup$      | Ļ        |
|        | 3        | ン             | $\vdash$ | ┥        | ┥        | $\dashv$ |           | -        | -        | -         |       |               | 52<br>53 | Н        | $\vdash$ | +            | +                   | ╁╌       | H  |          | 4        |          |                 | 102        | -        | +               | +        | +        | +        | ╄        | Щ             | L        |
|        | 4        | 7             | $\dashv$ | $\dashv$ | ┪        | $\dashv$ | $\dashv$  | $\vdash$ | -        | -         |       |               | 54       | $\vdash$ | $\vdash$ | +            | +                   | ╁        | ╌┨   | +        | -        |          |                 | 103        | -        | +               | ╀        | ╀        | ┿        | ╄        | Н             | ┝        |
|        | 5        | Y             | $\dashv$ | +        | ┪        | $\dashv$ |           | $\dashv$ | ┰        |           |       |               | 55       | $\vdash$ | -        | -            |                     | ╀        | ╌  |          | -        |          |                 | 104        |          | +               | ┿        | ╀        | ╁        | $\vdash$ | Н             | ┝        |
|        | 6        |               | -        | $\dashv$ | ┪        | $\dashv$ | $\dashv$  | -        | $\dashv$ | _         |       |               | 56       | H        | $\vdash$ | +            | ┿                   | ╂─       | ╂╼╉  |          | -4       |          |                 | 105        | +        | +               | ╀        | +-       | ╁        | -        | $\dashv$      | L        |
|        | 7        |               |          | 十        | ┪        | $\dashv$ | -         | -        | +        | -         |       |               | 57       | Н        | $\dashv$ | ╅            | ┿                   | ╁        | ┨─┤  | +        | -        |          |                 | 106<br>107 |          | ╬               | +-       | ╫        | ╀        | ⊢        |               | H        |
|        | 8        |               | ┪        | $\dashv$ | 7        | 一        | 一         | -        | 十        | _         |       |               | 58       | Н        | +        | $\dashv$     | ┿                   | ╁        | $\vdash$   | +        | -        | ····     |                 | 108        | +        | ┿               | ╁        | ┿        | ╁╴       | ╁        | -             | <b>-</b> |
|        | 9        | $\neg$        | 一        | 7        | 7        | 7        | $\dashv$  | 寸        | +        | $\exists$ |       | -             | 59       | Н        | $\dashv$ |              | +                   | +        | ┨  | +        | $\dashv$ | ···}     |                 | 109        |          | ╁               | +        | ╁        | ╁╴       | ╁        | $\dashv$      | -        |
| \      | 10       |               | ┪        | 7        | 7        | 7        | ┪         | $\dashv$ | 7        | ᅥ         |       |               | 60       | Н        | $\dashv$ | -+-          | +                   | ╁╴       | <del>                                     </del> | +        | ┨        |          |                 | 110        | ╅        | ╁               | ╅╸       | +        | ╁        | Н        | $\dashv$      | -        |
| $\neg$ | 11       | $\neg$        | $\dashv$ | $\top$   | ┪        | 7        | ┪         | ヿ        | 7        | ┪         |       | $\overline{}$ | 61       | Н        | 7        | +            | ╅                   | ┢        | <del>                                     </del> |          | 1        | -        | _               | 111        |          | ┪               | ┿        | ╁        | ╁        | Н        | $\dashv$      | -        |
|        | 12       |               | 寸        | 7        | 7        | 寸        | ┪         | $\dashv$ | ┪        | $\dashv$  |       |               | 62       | Н        | _        | +            | +                   | T        |  | +        | ┨        | ŀ        | -               | 112        | $\dashv$ | ╁               | ╁        | ╁╴       | ╁        | Н        | -+            | _        |
|        | 13       | $\neg$        | _        | $\top$   | 7        | 1        | 寸         | 一        | 寸        | 7         |       |               | 63       | Н        | 一        | +            | +-                  | 1        | $\vdash$   | +        | 7        | ı        |                 | 113        | +        | ╈               | +-       | +-       | +-       | ╁┤       | -+            | -        |
| $\neg$ | 14       | $\neg$        | 7        | $\dashv$ | ┪        | 7        | 7         | 7        | 7        | ᅦ         | iii l |               | 64       |          | $\dashv$ | +            | $\top$              | f        | Н  | +        | 1        | ı        | $\dashv$        | 114        | +        | 十               | ╈        | +        | 1-       | H        | -+            | -        |
| 一      | 15       | $\neg$        | 寸        | T        | 1        | $\neg$   | 7         | $\dashv$ | 十        | ٦         |       |               | 65       | П        | ヿ        | $\top$       | $\top$              |          | $\vdash$   | +        | 1        | <b> </b> |                 | 115        | $\dashv$ | ╁               | ╁        | ╁        | ╁╴       | Н        | ┪             | _        |
|        | 16       |               | 一        | _        |          | T        |           |          | 丁        | 7         |       |               | 66       | $\sqcap$ | 十        | +            | $\top$              | П        | $\Box$   | $\top$   | 1        | ľ        | $\neg$          | 116        | +        | +               | T        | T        | $\vdash$ | H        | $\dashv$      | ÷        |
|        | 17       |               |          | $\Box$   | 1        |          | 7         | 7        | 7        |           |       |               | 67       | $\Box$   | ┪        | 7            | ✝                   | Г        | $\vdash$   | 7        | 1        | ŀ        | _               | 117        | +        | ╅               | ╈        | 十        | 1-       | Н        | +             | -        |
|        | 18       |               |          | T        | 7        | $\neg$   | 寸         |          | T        | ╗         |       |               | 68       | $\neg$   | $\dashv$ | ┪            | T                   | П        |  | 十        | 1        | -        | $\neg$          | 118        | _        | +               | +-       | ╈        |          | Н        | 十             | _        |
|        | 19       | $\neg$        | 7        | $\top$   | 7        | $\top$   | 7         | $\neg$   | T        | ٦         |       | 一             | 69       | $\Box$   | 7        | 十            | 1                   | M        |  | 1        | 1        | -        | _               | 119        | -        | +               | +-       | 十        |          | H        | _             |          |
|        | 20       |               |          | ┱        | T        | T        | 7         | 7        | 7        |           | 1     |               | 70       |          | 丁        |              | Τ                   | П        | 1  | _        | 1        | 1        |                 | 120        | +        | 十               | ┪-       | †        | ┪        | H        | +             | _        |
| П      | 21       | П             | Т        | 7        | Т        | T        | $\exists$ | T        | T        |           |       |               | 71       | $\neg$   | 1        | 1            | 1                   | П        | $\neg$   | 十        | 1        | r        | _               | 121        | ┪        | †               | ✝        | ✝        | 1        | Н        | 7             |          |
|        | 22       |               |          | T        |          |          | $\Box$    | 丁        | T        |           |       |               | 72       |          | T        | 1            | 1                   | П        |  | 7        | 1        | 1        | $\neg$          | 122        | +        | +               | T        | t        | П        | H        | $\dashv$      | _        |
|        | 23       | $\Box$        | $\Box$   |          | Т        | Т        | Т         | Т        |          |           |       |               | 73       | $\neg$   |          | $\top$       | T                   |          |  | 7        | 1        | r        | $\neg \uparrow$ | 123        | _        | 1               | 1        | t        | Н        | Н        | +             | _        |
|        | 24       | $\Box$        |          | $\Box$   |          |          |           |          |          | 7         |       |               | 74       | $\neg$   | Т        | Т            | Τ                   | П        | $\neg r$   | 7        | 1        | r        | $\neg$          | 124        | 十        | 1               | T        | T        | П        |          | 1             | -        |
|        | 25       |               |          | $\perp$  |          | $\Box$   |           | $\Box$   | $\perp$  | ]         |       |               | 75       |          |          |              |                     | П        | T  | T        | 1        |          |                 | 125        | 1        | 1               | T        | Г        | П        | $\dashv$ | +             | _        |
|        | 26       |               |          | $\perp$  | $\Box$   |          |           | $\Box$   | $\Box$   |           |       |               | 76       |          |          | $\mathbf{I}$ | Т                   | П        | $\neg$   | T        | 1        |          |                 | 126        |          | $\top$          | 1        | ✝        | П        | $\Box$   | 1             | _        |
|        | 27       |               |          |          | $\perp$  |          |           |          | Т        |           |       |               | 77       | $\Box$   |          | Τ            | П                   | П        | T  | T        | 1        |          |                 | 127        | $\top$   | T               | Τ        | Г        |          | $\dashv$ | 十             | _        |
|        | 28       | $\perp$       |          | $\perp$  |          | $\Box$   |           |          |          |           |       |               | 78       | $\Box$   | T        |              |                     | П        | Т  | Т        | 7        | Γ        |                 | 128        | $\top$   | Т               | T        |          |          | $\neg$   | 1             | _        |
|        | 29       | $\perp$       |          | $\perp$  | $\perp$  | $\perp$  |           |          | $\perp$  |           |       |               | 79       | $\Box$   |          |              |                     | П        | $\Box$   |          | ]::      |          |                 | 129        | 7        | Τ               | 1        |          |          | $\neg$   | 7             | _        |
|        | 30       | _             |          | $\perp$  | 丄        | $\perp$  |           |          |          | ]         |       |               | 80       | $\Box$   |          |              |                     |          | $\Box$   |          | ]        | Γ        |                 | 130        |          | Т               |          | Π        |          | _        | $\top$        | _        |
|        | 31       | 4             | 4        | ┵        | ┸        | ᆚ        | ┸         | $\perp$  |          | ╛         | L     |               | 81       |          |          |              |                     |          |  |          |          |          |                 | 131        | T        | П               |          |          |          | П        | T             | Т        |
|        | 32       | 4             | ┵        | ┸        | 1        | ᆚ        | $\perp$   |          | $\perp$  | _         |       |               | 82       |          |          | $\perp$      |                     |          |  |          |          | L        |                 | 132        | Т        | Π               | Г        | П        |          |          | Т             |          |
|        | 33       | 4             | 4        | 4        | 4        | 4        | 4         | 4        | ┸        | 4         |       | _             | 83       | $\perp$  |          |              |                     |          |  | L        |          |          |                 | 133        | T        |                 |          |          |          | $\Box$   | $\perp$       | _        |
| _      | 34       | 4             | 4        | 4        | 1        | 4        | 4         | ┵        | ┸        | _         | L     |               | 84       | _        | $\perp$  |              | Ш                   |          |  |          |          | L        |                 | 134        |          |                 | Ĭ        |          |          | $\Box$   | Т             |          |
|        | 35       | 4             | 4        | 4        | 4        | 4        | 4         | 4        | 4        | _         | L     |               | 85       | _        | 4        | 丄            | Ц                   | $\dashv$ |  | $\perp$  |          | L        |                 | 135        | $\perp$  |                 |          |          |          |          | $\perp$       | Ξ        |
|        | 36       | 4             | 4        | +        | 4        | _        | +         | +        | 4        | 4         | L     |               | 86       | _        | 4        | 4            | Ш                   | _        |  | 4_       | l        | L        |                 | 136        |          | L               | L        |          |          |          |               | _        |
|        | 37       | +             | +        | +        | +        | 4        | 4         | +        | ╀        | 4         | ıL    |               | 87       | 4        | 4        | 4            | Ш                   | _        | $\bot$   | ┸        |          | L        |                 | 137        |          | L               | Ш        | Ш        |          | _        | ┸             |          |
|        | 38       | +             | +        | +        | +        | +        | +         | - -      | 4-       | -         | L     |               | 88       | +        | +        | 4            | $\sqcup$            | 4        | -  | 4-       |          | -        |                 | 138        | 4_       | <b>L</b>        | Ш        | Ш        | _        | $\perp$  | _[_           |          |
|        | 39       | +             | +        | +        | ╀        | +        | +         | +        | +        | 4         | -     |               | 89       | +        | +-       | +-           | $\sqcup$            | 4        | 4  | $\bot$   | ı        | _        |                 | 139        | 4        | _               | L.       | Щ        | _        | 4        | 丄             | _        |
|        | 40       | +             | - -      | +        | ╀        | +        | +         | +        | +-       | -         | -     |               | 90       | +        | -        | -            | ⊢↓                  | 4        | _  | ┺        | ı        | -        |                 | 140        | -        | ↓_              | <u> </u> | Ш        | _        | 4        | 4             | _        |
|        | 41       | +             | +        | +        | ╀        | +        | +         | +        | +        | -         | -     |               | 91       |          | +        | +            | ⊦-∤                 | 4        | 4  | +-       |          | -        |                 | 141        | $\bot$   | <b>!</b>        | Щ        | Ш        | 4        | 4        | ┸             | _        |
|        | 42       | +             | +        | +-       | +        | +        | +         | +        | +-       | -         | -     |               | 92       | +        | +        | +-           | $\vdash \vdash$     | $\dashv$ | +  | +        |          | L        |                 | 142        | +        | ـــ             |          | Ш        | 4        | 4        | 1             | ┙        |
|        | 43<br>44 | +             | ┿        | ╫        | ╀        | +        | +         | ╁        | ╁        | -         | -     |               | 93       | +        | +-       | ╀            | $\vdash \vdash$     | -        | 4  | +-       |          | <b> </b> |                 | 143        | 4-       | <u> </u>        | Щ        | $\sqcup$ | _        | 4.       | 4             | ┙        |
|        | 45       | +             | ╁        | +        | +        | +        | +         | +        | +-       | 4         | -     |               | 94       | +        | ┰        | +            | ⊢┤                  | +        | +  | ╀        |          | -        |                 | 144        | +        | $\vdash$        | Ш        | $\sqcup$ | 4        | 4        | 4             | _        |
|        | 16       | +             | +        | ╁        | +        | - -      | +         | +        | ╁        | +         | -     |               | 95       | +        | +-       | +-           | ⊢┼                  | +        | +  | +        |          | -        |                 | 145        | 4        | <u> </u>        | Ш        | Ц        | _        | 4        | +             | ┙        |
|        |          | ┿             | +        | ╁        | ╀╌       | +        | ╫         | +        | +        | -         | -     |               | 96       | +        | +-       | ╁            | $\vdash \downarrow$ | -+       | +-   | +-       |          | L        |                 | 146        | +        | Н               | Щ        | _        | 4        | 4        | +             | ┙        |
|        | 17       | ┿             | ╁        | ╁        | ╁        | ╁        | ┿         | ╁        | ┿        | -         | ⊩     | _             | 97       | +        | +-       | +            | $\vdash \vdash$     | +        | 4-   | ╀        |          | <b> </b> | _               | 147        | +        | $\vdash \dashv$ | Ш        | 4        | $\dashv$ | 4        | 4             | 4        |
|        | 19       | +             | +-       | +-       | ╀        | ┿        | +         | +        | +        | -         | ⊩     |               | 98       |          | +        | $\vdash$     | $\vdash \vdash$     | 4        | +  | $\vdash$ |          | L        |                 | 148        | $\vdash$ | Щ               |          |          | 4        |          | 4             | ┙        |
|        |          | 4             |          |          | 1        | 1        | 1         | 1        | 1        | 134       | ::1   | - 13          | 99       |          | •        |              |                     | 1        | - 1  | 1        |          | .1       | - 1 -           | 149        | 1 1      | ı 1             |          | - 1      | - 1      | - 1      | 1             | - 1      |